

Appl. No. 10/652,628
Amtd. Dated Jun. 10,2004
Reply to Office Action of Mar 10, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (original): An electrical connector for engaging with an electronic card, comprising:

an elongate dielectric housing defining a slot in a mating face along a first direction;

a plurality of contacts retained in the housing and comprising contact portions extending into the slot for engaging with the electronic card; and

a retention mechanism located at one end of the housing, the retention mechanism comprising at least one curved resilient arm abutting against a top face of the housing and a pair of legs spaced from each other to define a channel therebetween adapted for receiving a latching projection of the electronic card, the at least one resilient arm flattening to move the legs outwardly.

Claim 2 (original): The electrical connector as claimed in claim 1, wherein the legs are outwardly moveable by flattening the at least one resilient arm along a second direction perpendicular to the first direction.

Claim 3 (original): The electrical connector as claimed in claim 2, wherein the housing comprises an end wall having an oblique inner face for preventing the legs

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from overly moving.

Claim 4 (original): The electrical connector as claimed in claim 1, wherein the housing comprises a pair of supports extending beyond the mating face, and wherein the retention mechanism comprises a pair of mating arms received in the supports and adapted for engaging opposite sides of the electronic card.

Claim 5 (original): The electrical connector as claimed in claim 4, wherein the at least one resilient arm comprises two spaced resilient arms extending from the legs toward the mating arms, the two resilient arms being located at opposite sides of the slot.

Claim 6 (original): The electrical connector as claimed in claim 5, wherein the supports define a pair of recesses, and wherein the resilient arms comprises a pair of abutments received in the recesses.

Claim 7 (original): The electrical connector as claimed in claim 5, wherein the retention mechanism comprises a main body having a first end from which the legs extend and a second end from which the mating arms extend.

Claim 8 (original): The electrical connector as claimed in claim 7, wherein the retention mechanism comprises a tail extending from the main body for connecting to a mother printed circuit board on which the connector is mounted.

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Claim 9 (original): The electrical connector as claimed in claim 8, wherein the retention mechanism comprises a connecting portion interconnecting the legs with the resilient arms.

Claim 10 (original): The electrical connector as claimed in claim 9, wherein the retention mechanism comprises a tab extending outwardly from the intermediate portion and located between the legs.

Claim 11 (original): The electrical connector as claimed in claim 1, wherein the housing is a two-piece configuration and comprises a main housing in which the contacts are retained and an accessory housing at one end of the main housing, the retention mechanism being received in the accessory housing.

Claim 12 (currently amended): A retention mechanism adapted for being mounted to an electrical connector for securing an electronic card in the connector, comprising;

a main body;

a pair of spaced legs extending upwardly from one end of the main body to define a channel therebetween; and

at least one resilient arm extending in a second direction substantially perpendicular to the first direction and comprising a pair of upwardly extending abutments at free ends thereof.

Claim 13 (original): The retention mechanism as claimed in claim 12, wherein the at least one resilient arm comprises two resilient arms located beside opposite

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sides of the legs.

Claim 14 (cancelled)

Claim 15 (original): The retention mechanism as claimed in claim 13, further comprising a connecting portion interconnecting the legs and the resilient arms.

Claim 16 (original): The retention mechanism as claimed in claim 12, further comprising a pair of mating arms extending upwardly from an opposite end of the main body and adapted for contacting with a mating edge of the electronic card.

Claim 17 (original): The retention mechanism as claimed in claim 16, wherein the mating arms define a pair of lead-ins at top ends thereof.

Claim 18 (original): The retention mechanism as claimed in claim 16, wherein the main body includes a first horizontal portion connecting with the legs, a second vertical portion connecting with the mating arms and a U-shaped intermediate portion interconnecting the first and the second portions.

Claim 19 (original): The retention mechanism as claimed in claim 18, further comprising a pair of tails downwardly extending from the second vertical portion.

Claim 20 (original): An electrical connector assembly, comprising:
a dielectric housing defining a slot with a plurality of contacts arranged at two

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sides thereof;

an electronic card having a mating edge received in the slot and electrically contacting with the contacts, the electronic card comprising a latching projection at one end thereof; and

a retention mechanism located at one end of the housing, the retention mechanism comprising at least one resilient arm located at one side of the electronic card and a pair of spaced legs defining a channel therebetween with the latching projection received therein, the channel having a width substantially the same as the latching projection, the spaced legs being outwardly moveable by deflecting the at least one resilient arm to deflect from a closed position where the latching projection is received in the channel to a released position where the latching projection is disengaged from the channel.

Claim 21 (original): The electrical connector assembly as claimed in claim 20, wherein the at least one resilient arm comprise two resilient arms located at opposite sides of the electronic card.

Claim 22 (original): The electrical connector assembly as claimed in claim 20, wherein the at least one resilient arm comprises an abutment, and wherein the housing defines a recess receiving the abutment therein.

Claim 23 (original): The electrical connector assembly as claimed in claim 22, wherein the housing comprises an end wall having an oblique inner face for preventing the legs form overly moving.

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Claim 24 (original): The electrical connector assembly as claimed 23, wherein the resilient arm is downwardly deflectable with the abutment received in the recess all the time to allow the legs to move outwardly until the legs abut against the inner face of the end wall.

Claim 25 (original): The electrical connector assembly as claimed in claim 20, wherein the retention mechanism comprises a pair of mating arms parallel to the legs, the mating arms engaging with opposite sides of the electronic card.

Claim 26 (original): An electrical connector assembly, comprising:
a dielectric housing defining a slot with a plurality of contacts retained at two sides thereof;
an electronic card received in the slot and electrically engaging with the contacts, the electronic card comprising a first connecting portion; and
a retention mechanism located at one end of the housing, the retention mechanism comprising at least one resilient arm located at one side of the electronic card and a second connecting portion engaged with the first connecting portion, the at least one resilient arm being deflectable about the abutment in a first direction to actuate the second connecting portion to be deflectable in a second direction, the second direction being substantially perpendicular to the first direction.

Claim 27 (original): The electrical connector assembly as claimed in claim 26,

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wherein the retention mechanism comprises a pair of mating arms engaging with opposite sides of the electronic card.

Claim 28 (original): The electrical connector assembly as claimed in claim 27, wherein one of the first and the second connecting portions is a latching projection and another of the first and the second connecting portions is a channel.

Claim 29 (original): An electrical connector assembly, comprising:
an insulative housing defining an elongated slot with two rows of terminals by two sides thereof;

a daughter board inserted into the slot, said daughter board defining a notch in a side edge portion and a latch projection under said notch; and

a resilient retention mechanism located around an end of said housing, said retention mechanism including a first section invading the notch to prevent upward movement of the daughter board, and a second section located by a transverse side of the daughter board and actuating the first section to move; wherein

when the second section is essentially downwardly recoverably moved by a manual force in a first direction, the first section is actuated by said second section to recoverably move along a second direction roughly perpendicular to said first direction to leave from the notch for releasing the daughter board from the housing.